SPECIFICATION AMENDMENT

Please amend page 6, under the brief description of the drawing the description of Figs. 1A and 1B according to the following clean version.

A1

Fig. **1A** depicts a saturable Bragg reflector to a first embodiment of the present invention;
Fig. **1B** depicts a saturable Bragg reflector to the prior art;

CLAIM AMENDMENT

Please amend claims **1**, **6**, **7** and **12 - 36** according to the following clean versions.

Sub B1
A2

1. A saturable reflector apparatus comprising:
   a) an etalon at least partially provided by a substrate and at least one modified surface of two surfaces of said substrate; and
   b) a reflector deposited on one of said two surfaces that opposes said modified surface such that an impinging light beam is initially propagating through said reflector and said substrate before reaching said at least one modified surface, wherein the reflector includes a saturable absorber layer.

Sub B2
A3

6. The apparatus of claim 5 wherein the tuning means comprise means for adjusting an optical thickness between said two surfaces.

7. The apparatus of claim 6 wherein the adjusting means comprises a heat transfer element thermally coupled to the substrate via said modified surface, wherein the heat transfer element is chosen from the group consisting of heater elements and cooling elements.

Sub B3
A4

12. A method for tuning a Saturable Reflector comprising the steps of:

a) providing an etalon at least partially by a substrate and at least one modified surface of two surfaces of said substrate;

b) depositing a reflector on one of said two surfaces that opposes said modified surface;

a) initially impinging said reflector with a light beam; and

b) using said etalon to control a spectrum of radiation of said light beam propagating through said reflector and through said substrate before reaching said at least one modified surface.

13. (*Once Amended)* The method of claim 12 wherein the modifying step comprises polishing at least one of the front and back surfaces to within a quarter wavelength of light that will be used with the SBR.

14. (*Once Amended)* The method of claim 12 wherein the modifying step comprises coating at least one of the front and back surfaces with a reflective coating.

A4 Sub C1

15. (*Once Amended)* The method of claim 14 wherein the coating includes a metallic or a dielectric material.

Sub B4

16. (*Once Amended)* The method of claim 12, further comprising the step of tuning the etalon effect.

17. (*Once Amended)* The method of claim 16 wherein the tuning step comprises adjusting an optical thickness between the first and second surfaces of the substrate.

Sub C1

18. (*Once Amended)* The method of claim 17 wherein the thickness is adjusted by controlling a temperature of the substrate.

Sub B5

19. (*Once Amended)* The method of claim 18, wherein the tuning adjusts a length of an optical pulse that is incident on the SBR.

20. *(Once Amended)* The method of claim 16, wherein the tuning optimizes a relation between temporal and frequency domains of radiation incident on the SBR.

21. *(Once Amended)* The method of claim 16 wherein the tuning adjusts a distribution of optical power amongst two or more modes of radiation incident on the saturable reflector.

22. A laser comprising:
   a) an optical cavity;
   b) a lasing medium disposed within the optical cavity;
   c) a pump configured to provide pump radiation to the lasing medium; and
   d) a saturable reflector optically coupled to the cavity, wherein the saturable reflector includes
      i) an etalon at least partially provided by a substrate and at least one modified surface of two surfaces of said substrate; and
      ii) a reflector deposited on one of said two surfaces that opposes said modified surface such that an impinging light beam is initially propagating through said reflector and said substrate before reaching said at least one modified surface, wherein the reflector includes a saturable absorber layer.

Am

23. *(Once Amended)* The laser of claim 22 further comprising a non-linear medium disposed within the cavity.

Sub C1

24. *(Once Amended)* The laser of claim 23 wherein the nonlinear medium is a crystal containing a material chosen from the group consisting of Lithium Niobate ($LiNbO_3$), Lithium Tantalate ($LiTaO_3$), Lithium Borate ($LiBO_3$) periodically poled lithium niobate (PPLN), periodically poled lithium tantalate (PPLT) MgO:PPLN, KTP, PPKTP, RTA, BBO, MgO:LN, KTA, and PPRTA.

Sub B6

25. *(Once Amended)* The laser of claim 22 wherein the surface that has been modified to enhance the etalon effect has been polished.

26. *(Once Amended)* The laser of claim 22 wherein the surface that has been modified includes a coating.

Sub C1

27. *(Once Amended)* The laser of claim 26 wherein the coating includes a metallic or a dielectric material.

Sub B7

28. *(Once Amended)* The laser of claim 22, further comprising means for tuning the etalon effect.

29. *(Once Amended)* The laser of claim 28 wherein the tuning means adjusts an optical thickness between said two surfaces of the substrate.

Sub C1

30. *(Once Amended)* The laser of claim 29 wherein the adjusting means comprises a heater element thermally coupled to the substrate.

A4

31. *(Once Amended)* The laser of claim 30, further comprising a temperature controller coupled to the heater element.

Sub B8

32. *(Once Amended)* The laser of claim 22 wherein the substrate has a thickness large enough such that the substrate acts as an etalon having a free spectral range of the same order as a linewidth of the laser.

33. *(Once Amended)* The laser of claim 32 wherein the free spectral range is of order 1 GHz.

Sub C1

34. *(Once Amended)* The laser of claim 22 wherein the reflector is a Bragg stack, whereby the saturable reflector is a saturable Bragg reflector (SBR).

35. *(Once Amended)* The laser of claim 22, wherein the reflector includes a metallic or dielectric film.